Attorney's Doc No.: 10964-043001 / Case 629

Applicant: Prathap Haridoss
Serial No.: 09/727,748

Filed: November 30, 2000

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REMARKS

In response to the Office Action mailed August 7, 2002, Applicants have amended claims 1, 14-16 and 21, and canceled claims 11-13 and 17. Claims 1-10, 14-16 and 18-24 are presented for examination.

The Examiner objected to Figs. 1 and 2. Applicants submit herewith amended versions of Figs. 1 and 2, and request reconsideration and withdrawal of the objection to Figs. 1 and 2.

The Examiner objected to the Abstract. Applicants have amended the Abstract, and request reconsideration and withdrawal of the objection to the Abstract.

The Examiner rejected claims 1-24 under 35 U.S.C. §102(b) as being anticipated by Breault, U.S. Patent No. 4,017,663 ("Breault").

As amended, the claims cover compositions that compose a fuel cell electrode containing a catalyst and a material that is resistant to oxidation up to about 3.0 Volts vs. SHE on which the catalyst is distributed.

In contrast, Breault's fuel cell electrode has a catalyst supported by graphite. (Breault col. 3, lines 20-22, 29-31 and 43-45). The fuel cell electrode can further contain tungsten oxide *mixed with* the graphite-supported catalyst, but the catalyst is *distributed on* the graphite and *mixed with* the tungsten oxide. (<u>Id.</u> col. 3, lines 29-31 and 43-45). The catalyst is *not distributed on* by the tungsten oxide. (<u>Id.</u>). Moreover, there is no suggestion to modify Breault's fuel cell electrode to provide the fuel cell electrode compositions covered by claims 1-24. Applicants therefore request reconsideration and withdrawal of the rejection of claims 1-24 under 35 U.S.C. §102(b) as being anticipated by Breault.

The Examiner rejected claims 1-8, 10-12, 14 and 15 under 35 U.S.C. §102(b) as being anticipated by Narayanan et al., U.S. Patent No. 5,945,231 ("Narayanan").

As amended, claims 1-8, 10-12, 14 and 15 cover compositions that compose a fuel cell electrode that contains a catalyst that is distributed on a material that is resistant to oxidation up to about 3.0 Volts vs. SHE with a load between about 5 percent and about 95 percent.

Narayanan does disclose a fuel cell electrode that contains a catalyst and zirconium oxide. (Narayanan col. 9, lines 24-38). However, Narayanan does not disclose that the catalyst

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is distributed on the catalyst with a load between about 5 percent and about 95 percent. Applicants therefore request reconsideration and withdrawal of the rejection of claims 1-8, 10-12, 14 and 15 under 35 U.S.C. §102(b) as being anticipated by Narayanan.

Attached is a marked-up version of the changes being made by the current amendment.

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Applicants believe the application is in condition for allowance, which action is respectfully requested. Please apply any other charges or credits to Deposit Account No. 06-1050.

Sean P. Daley Reg. No. 40,978

Respectfully submitted,

Fish & Richardson P.C. 225 Franklin Street

Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

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Version with markings to show changes made

In the claims

Claims 11-13 and 17 were cancelled.

The claims were amended as follows.

--1. (Amended) A composition, comprising:

a catalyst;

a first material resistant to oxidation up to about 3.0 Volts vs. SHE; and

a non-electrolytic material different than the catalyst,

wherein the catalyst is distributed on the first material with a load between about 5 percent and about 95 percent, and the [catalyst and the non- electrolytic material compose] composition composes a fuel cell electrode.

- 14. (Amended) The composition of claim [11] 1, wherein the first material comprises an oxide.
- 15. (Amended) The composition of claim [11] 1, wherein the first material is selected from a group consisting of tungsten oxide, zirconium oxide, niobium oxide, and tantalum oxide.
 - 16. (Amended) A composition, comprising:
 - a catalyst; and
 - a first material resistant to oxidation up to about 3.0 Volts vs. SHE,

wherein the catalyst is distributed on the first material, and the [catalyst and the first material compose] composition composes a fuel cell electrode.

- 21. (Amended) A composition, comprising:
- a catalyst capable of catalyzing oxidation of a fuel cell gas;
- a first material resistant to oxidation up to about 3.0 Volts vs. SHE; and

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a <u>binder comprising a fluorine-containing</u> non- electrolytic material, <u>the binder</u> containing the first material and the catalyst,

wherein the catalyst is distributed on the first material, and the [catalyst, the first material, and the non-electrolytic material compose] composition composes a fuel cell electrode.--

In the abstract:

--A composition includes a catalyst, and a non-electrolytic material different than the catalyst, wherein the catalyst and the non-electrolytic material compose a fuel cell electrode.

The composition further includes a material that is resistant to oxidation up to about 3.0 Volts vs.

SHE. The catalyst is distributed on the additional material, and the additional material can be an oxide.--